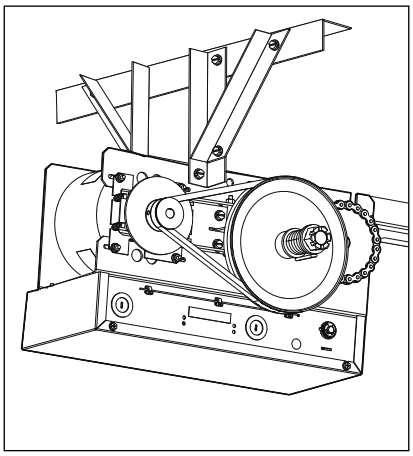
RAYNOR

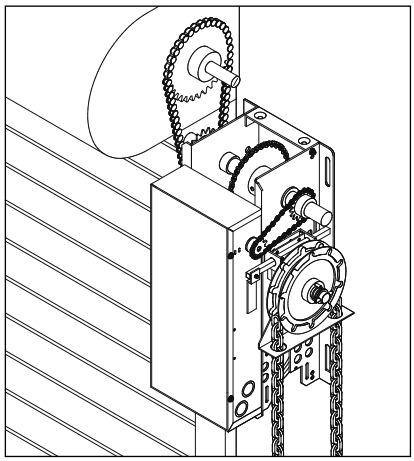
CONTROLHOIST™ BASIC

MEDIUM DUTY LOGIC

USER'S GUIDE



MT5011UCHB



MH5011URCHB
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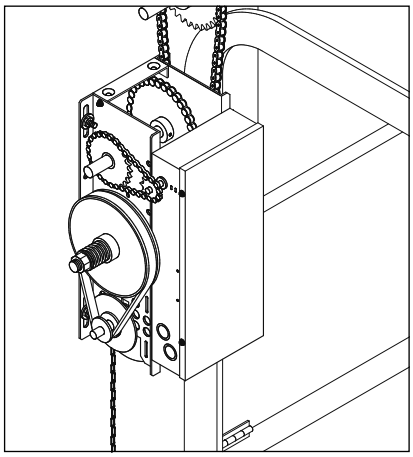


MJ5011UCHB

CONTACT INFORMATION

SOLID STATE

Radio Receiver Built on Board

315 MHz

c UL US

Installation Date _____

www.Raynor.com

INTRODUCTION

Congratulations on purchasing a quality, Raynor Medium Duty Commercial Door Operator. Your new operator is capable of operating up to 12 cycles per hour or 50 cycles per day. It is equipped with a built in radio receiver that is compatible with our existing 315 MHz product line as well as a Timer-to-Close (TTC) feature that can be enabled when LiftMaster Commercial Protector System® is installed and aligned properly.

BASIC PROGRAMMING

DETERMINE THE WIRING TYPE

The functionality of this operator is based on the wiring type. The operator is shipped from the factory in standard C2 wiring type (factory default). LIFTMASTER MONITORED ENTRAPMENT PROTECTION (LMEP) DEVICE IS REQUIRED.

NOTES:

- *The LED on the logic board will blink once when in C2 and twice when in B2.*
- *The operator will automatically convert to B2 wiring when Monitored Entrapment Protection Device is installed. If the Monitored Entrapment Protection Device is removed, the operator will go into a Restricted Close mode**. Turn power OFF and ON to reset wiring type.*

*** Restricted close mode requires a constant pressure close command. The operator will begin closing after a 5 second delay and will continue to close to the close limit switch. The operator will stop if the pressure to close is released before reaching the close limit.*

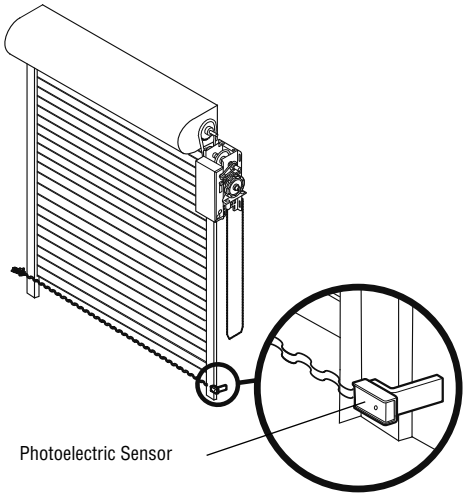
RECOMMENDED INSTALLATION: B2 WIRING TYPE WITH MONITORED ENTRAPMENT PROTECTION DEVICE

- Momentary contact to open, close and stop.
- Open override that reverses when closing by any opening device.
- Wiring for entrapment protection device to reverse.

  NOTE: *The operator will automatically convert to B2 wiring when Monitored Entrapment Protection Device is installed. (See accessories page for Monitored Entrapment Protection Devices.)*
- Timer-to-Close (TTC) feature available.

No Programming Required

MONITORED ENTRAPMENT PROTECTION DEVICE



BASIC PROGRAMMING

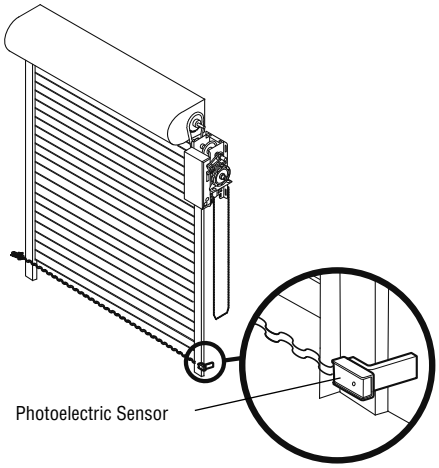
DETERMINE THE WIRING TYPE

ALTERNATE INSTALLATION: C2 WIRING TYPE WITH MONITORED ENTRAPMENT PROTECTION DEVICE

- Momentary contact to open and stop with constant pressure to close.
- Open override that reverses when closing by any opening device.
- Wiring for entrapment protection device to reverse.

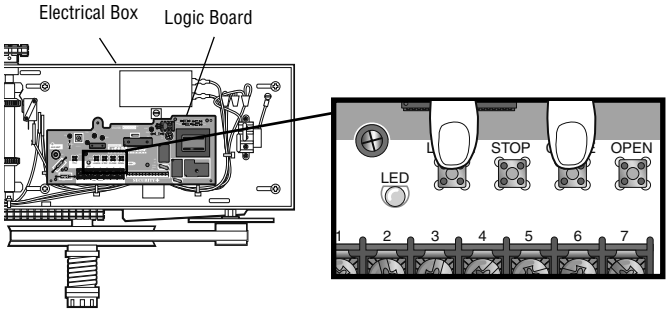
  NOTE: *The operator will automatically convert to B2 wiring when Monitored Entrapment Protection Device is installed. (See accessories page for Monitored Entrapment Protection Devices.)*
- Timer-to-Close (TTC) feature not available.

MONITORED ENTRAPMENT PROTECTION DEVICE



To Program:

1 Press and hold the LEARN and CLOSE buttons until the LED goes out (approximately 3 seconds).



To Reset to B2 with Monitored Entrapment Protection Device:

1 Press and hold the LEARN and STOP buttons until the LED goes out (approximately 3 seconds).

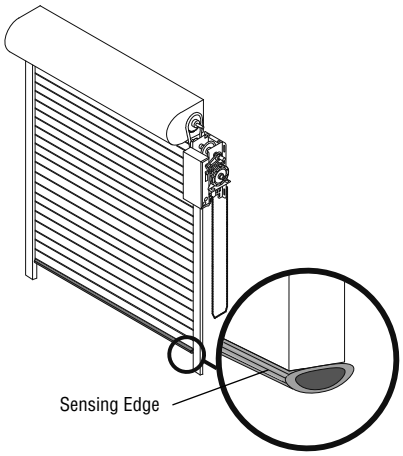
ALTERNATE INSTALLATION: C2 WIRING TYPE WITHOUT MONITORED ENTRAPMENT PROTECTION DEVICE

(FACTORY DEFAULT)

- Momentary contact to open and stop with constant pressure to close.
- Open override that reverses when closing by any opening device.
- Wiring for entrapment protection device to reverse.

  NOTE: *The operator will automatically convert to B2 wiring when Monitored Entrapment Protection Device is installed. (See accessories page for Monitored Entrapment Protection Devices.)*
- Timer-to-Close (TTC) feature not available.

NON-MONITORED ENTRAPMENT PROTECTION DEVICE



Reset to FACTORY DEFAULT (C2) without Monitored Entrapment Protection Device:

1 Remove any monitored entrapment protection devices.

2 Press and hold the LEARN and STOP buttons until LED goes out (approximately 3 seconds).

BASIC PROGRAMMING

⚠ WARNING

To prevent possible SEVERE INJURY or DEATH:

- Install a LiftMaster Monitored Entrapment Protection (LMEP) device.
- NEVER permit children to operate or play with door control push buttons or remote controls.
- Activate door ONLY when it can be seen clearly, is properly adjusted and there are no obstructions to door travel.
- ALWAYS keep door in sight until completely closed. NEVER permit anyone to cross the path of closing door.

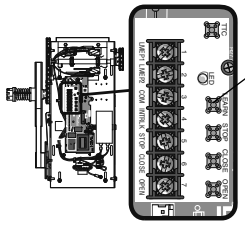
RADIO OPERATION					
MODE	**OPEN**	**CLOSE**	**STOP**	**REVERSE WHILE CLOSING**	**TTC RESET**
B2	**X**	**X**	**X**	**X**	
B2 with TTC	**X**	**X (3-button remote)**	**X**	**X**	**X when open**
C2	**X**		**X**	**X**	

REMOTE CONTROLS

Built in 315 MHz radio receiver permits as many as 20 Security✚® remote controls or dip switch remote controls in any combination.

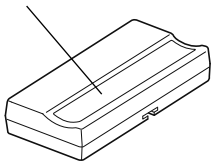
SINGLE BUTTON REMOTE CONTROL

1



Press and release the LEARN button (LED will light).

2 Press and hold the button on the remote control until the LED flashes rapidly, then release to complete programming (LED will go out).

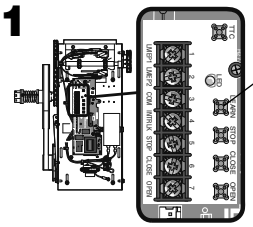


Repeat steps 1 and 2 for additional remote controls.

3-BUTTON REMOTE CONTROL TO OPERATE AS A WIRELESS 3-BUTTON CONTROL STATION

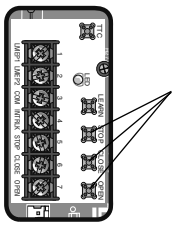
NOTE: *The feature will use 3 of the 20 memory channels in the operator.*

1



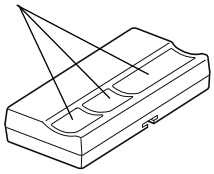
Press and hold the LEARN button (LED will light).

2



Press the desired button on the logic board (OPEN, CLOSE or STOP). Release both buttons.

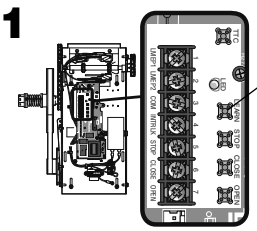
3 Press and hold the desired button of the remote control until LED flashes rapidly, then release.



Repeat steps 1 through 3 to program additional buttons.

TO ERASE ALL REMOTE CONTROLS

1



Press and hold the LEARN button (over 5 seconds) until the LED goes out. All programmed remote controls will be erased.

BASIC PROGRAMMING

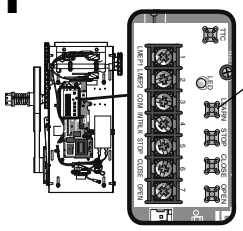
TIMER-TO-CLOSE (TTC)

Timer-to-Close feature enables the operator to close from the open limit after a preset time, adjustable from 5 to 60 seconds. **Requires LiftMaster Monitored Entrapment Protection (LMEP) device.**

TO PROGRAM

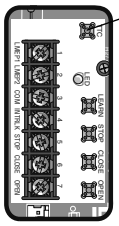
Begin with door in fully closed position.

1



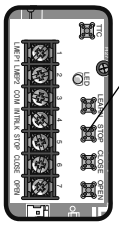
Press and release the LEARN button (LED will light).

2



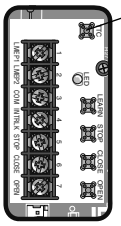
Press and release the TTC button.

3



Every press and release of the STOP button will add 5 seconds to the Timer-to-Close. Example: 30 second TTC = 6 presses of the STOP button.

4

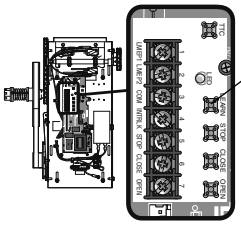


Press and release the TTC button to exit programming mode. The LED will flash once per 5 seconds of timer setting.

The TTC will become active after completion of the next open cycle. ***NOTE:*** *The LED does not indicate that timer is running.*

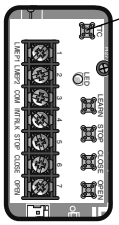
TO VERIFY TIMER-TO-CLOSE (TTC) SETTING

1



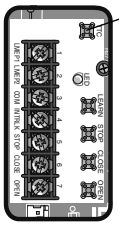
Press and hold the LEARN button (LED will light).

2



Press and release the TTC button.

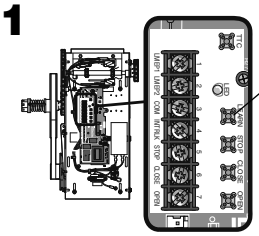
3



Press and release the TTC button a second time. The LED will flash once per 5 seconds of timer setting.

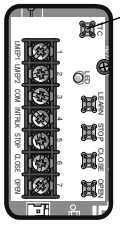
CLEAR THE TIMER-TO-CLOSE (TTC)

1



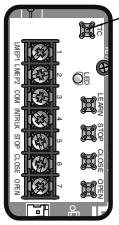
Press and release the LEARN button (LED will light).

2



Press and hold the TTC button for 6 seconds.

3



Release the TTC button (LED will go out). The TTC will no longer be active.

TIMER DEFEAT

The TTC can be temporarily disabled by pressing a STOP button. TTC will become enabled after the next open command.

TESTING

⚠⚠ WARNING

To avoid SERIOUS personal INJURY or DEATH:

- Disconnect electric power BEFORE performing ANY adjustments or maintenance.
- ALL maintenance MUST be performed by a trained door systems technician.

Turn on power, LED will flash 4 times on power up. Test all controls and entrapment protection devices to make sure they are working properly. It may be necessary to refer back to the installation manual for adjustment of the limits.

IMPORTANT NOTES:

- *Do not leave power to the operator on unless all entrapment protection devices have been tested and are working properly.*
- *Be sure you have read and understand all safety instructions included in this manual.*
- *Be sure the owner or person(s) responsible for operation of the door have read and understand the safety instructions, know how to electrically operate the door in a safe manner and how to manually disconnect the door from the operator.*

TEST 3-BUTTON CONTROL STATION

1. Press OPEN button. (The door should move in the open direction.)
2. Press STOP button. (The door should stop.)
3. Press CLOSE button. (The door should move in the close direction.)
4. Release CLOSE button. Door should stop if in C2 mode. (The door should continue closing if in B2 mode.)
5. Press STOP button. (The door should stop.)

TEST LIMIT ADJUSTMENT

1. Press OPEN button. (The door should open.)
2. Allow the door to fully open.
3. Press CLOSE button. (The door should close.)
4. Allow the door to fully close.

If the limits are not set properly, remove power and adjust limits (refer to installation manual).

TEST THE ENTRAPMENT PROTECTION DEVICES

1. Open the door.
2. Place an obstruction in the path of the photoelectric sensors or sensing edge.
3. Press the CLOSE button. The door should not close if photoelectric sensors are installed. The door should close to obstruction and reverse if sensing edge is installed.
4. Remove the obstruction.
5. Press CLOSE button. Door should close.

If door did not reverse from obstruction, check entrapment protection devices.

TEST REMOTE CONTROL

Requires B2 wiring type and compatible LiftMaster remote control. In C2 wiring the remote control will open the door only.

1. Press remote control button.
2. Door should open. Allow the door to fully open.
3. Press remote control button.
4. Door should close. Allow door to fully close.

EMERGENCY DISCONNECT

The operators have provisions for manually operating the door in case of emergency or power failure. Refer to the appropriate instructions for your model operator.

⚠ WARNING

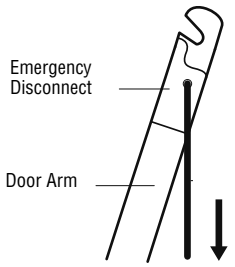
To prevent possible SERIOUS INJURY or DEATH from a falling door or arm:

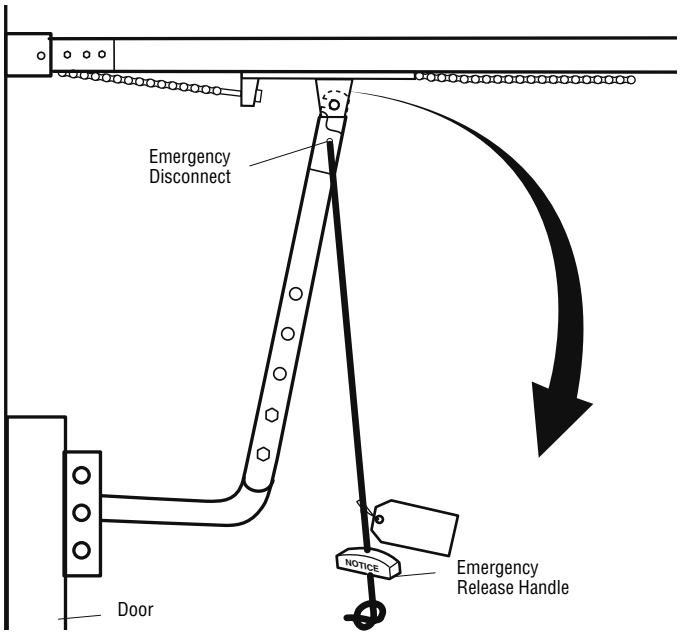
- DO NOT stand under the door arm when pulling the emergency release.
- If possible, use emergency release handle to disengage trolley ONLY when door is CLOSED. Weak or broken springs or unbalanced door could result in an open door falling rapidly and/or unexpectedly.
- NEVER use emergency release handle unless doorway is clear of persons and obstructions.

MODEL MT/BMT

TO DISCONNECT DOOR FROM OPERATOR

1 Pull emergency release handle straight down. Emergency disconnect will open.



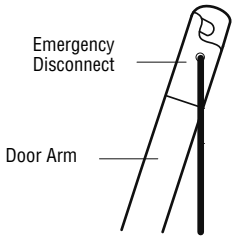


TO RECONNECT DOOR ARM TO TROLLEY

1 Lift free end of door arm to trolley.

2 Pull emergency release handle to allow arm to engage roll pin.

3 Let go of the emergency release handle. Emergency disconnect will close.



EMERGENCY DISCONNECT

⚠⚠ WARNING

To prevent possible SERIOUS INJURY from a moving chain:

- DISCONNECT electric power to the operator BEFORE manually operating your door.
- If possible, use emergency disconnect ONLY when door is CLOSED. Weak or broken springs or unbalanced door could result in an open door falling rapidly and/or unexpectedly.
- NEVER use emergency disconnect unless doorway is clear of persons and obstructions.

MODEL MH

These operators are equipped with a manual hoist. An electrical interlock will disable the electrical controls when the hoist is used.

1 Pull the disconnect chain (sash chain) to engage the hoist mechanism. The disconnect chain may be locked in position by slipping the end through the keyhole of the chain keeper mounted on the wall.

2 Operate the door in the desired direction by pulling on one side or the other of the continuous loop hoist chain.

3 The disconnect chain must be released from the chain keeper before the door will operate again electrically.

MODEL MHS

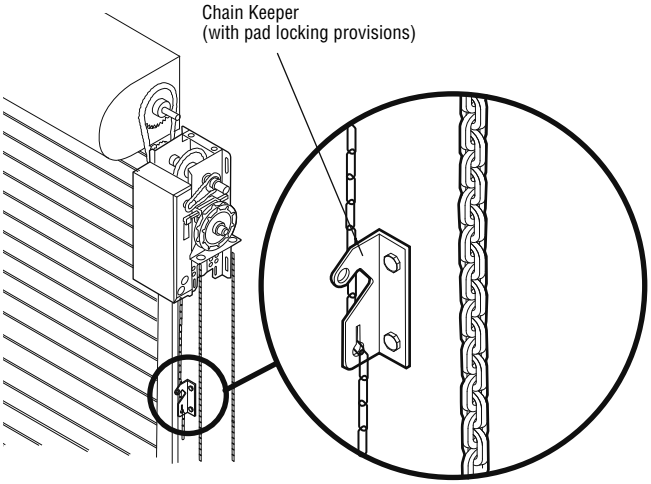
The MHS operator includes both a floor level disconnect sash chain to disconnect the door from the door operator that allows manual push up operation and an additional sash chain to engage the manual chain hoist that also electrically disables the operator controls.

1 Refer to Model MH instructions for hoist operation.

2 Refer to Model MJ instructions for emergency operation.

When the manual chain hoist sash chain is engaged, electrical operation will not function.

ELECTRICAL INTERLOCK WITH HOIST FOR MODELS MH AND MHS



MODELS MJ AND MGJ

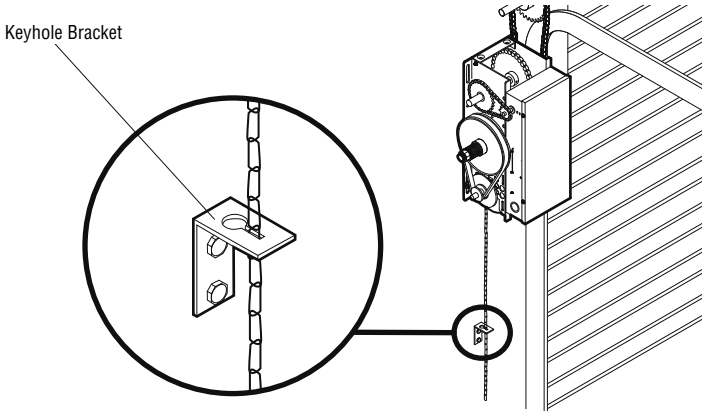
This operator has a floor level disconnect chain to disconnect the door from the door operator.

1 To disengage, pull the chain and secure in the disengaged position by slipping the end through the keyhole bracket mounted on the wall. Or if emergency egress device is used, pull handle to disengage operator from door.

2 The door may now be pushed up or pulled down manually.

3 Release the disconnect chain or reset the emergency egress device to operate the door again electrically.

EMERGENCY DISCONNECT FOR MODELS MJ



TROUBLESHOOTING

To locate a dealer in your area visit us online at www.Raynor.com.

CONDITION	POSSIBLE CAUSE	FIX
OPERATOR WILL NOT RESPOND TO ANY COMMANDS	No power	➤ Check circuit breaker.
	Accessory failure	➤ Verify photoelectric sensors are aligned.
	Possible component failure	➤ Contact your installing dealer.
OPERATOR MAKES NOISE BUT DOOR DOES NOT MOVE	Operator requires adjustment	➤ Contact your installing dealer.
DOOR DRIFTS AFTER OPERATOR STOPS	Operator or door requires adjustment	➤ Contact your installing dealer.
DOOR OPENS/CLOSES TOO FAR	Operator requires adjustment	➤ Contact your installing dealer.
DOOR REVERSES UNEXPECTEDLY	Entrapment protection device activated	➤ Verify photoelectric sensors are aligned. If photoelectric sensors are aligned and operator still does not operate properly, contact your installing dealer.
RADIO FUNCTIONALITY		
NO RESPONSE	Remote control is not programmed	➤ See PROGRAMMING REMOTE CONTROLS section.
	Low battery	➤ Replace battery.
REMOTE CANNOT BE PROGRAMMED	Low battery	➤ Replace battery.
POOR RANGE	Low battery in remote	➤ Replace battery.
	Possible radio interference	➤ Contact your installing dealer.

MAINTENANCE SCHEDULE

⚠ WARNING

To avoid SERIOUS personal INJURY or DEATH from electrocution, disconnect ALL electric power BEFORE performing ANY maintenance.

Every 3 months or 5,000 cycles repeat all tests in the Testing section.

Call qualified service contractor for maintenance. To locate a dealer in your area visit us online at www.Raynor.com.

The operator should be serviced at the following intervals:

- Every 3 months or 5,000 cycles
- Every 6 months or 10,000 cycles
- Every 12 months or 20,000 cycles

OPERATOR NOTES

ACCESSORIES

REMOTE CONTROLS 315 MHZ

LiftMaster offers a variety of **SECURITY+®** Remote Controls for your application needs. Single to 4-Button, visor or key chain. Contact your authorized dealer.

371LM

1-Button SECURITY+® Remote Control:

Includes visor clip.

373LM

3-Button SECURITY+® Remote Control:

Includes visor clip.

333LM

3-Button Tri-Colored Dip Switch Remote Control:

Open/Close/Stop functionality. Includes visor clip.

WPB1LM3

Wireless Single Push Button Control SECURITY+®:

Rugged composite housing. (Wireless controls cannot be used in place of hard wired controls.)

WPB3LM3

Wireless 3 Button Control Station SECURITY+®:

Rugged composite housing. (Wireless controls cannot be used in place of hard wired controls.)

WKP5LM3 (5 4-digit entry codes)
WKP250LM3 (250 4-digit entry codes)

Wireless Access Control Keypads SECURITY+®:

Rugged composite housing. (Wireless controls cannot be used in place of hard wired controls.)

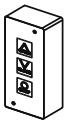
CONTROL STATIONS

02-102

2-Button Control Station:

Steel enclosure.

02-103



3-Button Control Station:

Steel enclosure.

02-109

Key Control Station:

Indoor flush mount, NEMA 1.

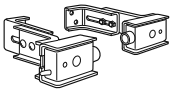
ENTRAPMENT PROTECTION DEVICES

CPS-UN4

Commercial Protector System:

LiftMaster Monitored Entrapment Protection (LMEP) provides protection on doors up to 40' wide. NEMA-4 rated.

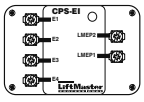
CPS-U



Commercial Protector System:

LiftMaster Monitored Entrapment Protection (LMEP) provides protection on doors up to 30' wide.

CPS-EI



Monitored Sensing Edge Interface:

Requires 4-wire monitored sensing edge.

65ME1234

Miller ME123 4-Wire Monitored Safety Edge:

For sectional or rolling doors.

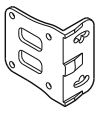
65ME110

Miller ME110 4-Wire Monitored Safety Edge:

For rolling grilles and counter shutters.

MOUNTING BRACKETS

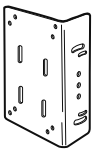
10-12360



Mounting Brackets:

Angle mounting bracket, Painted steel, for MJ, MH, and MHS.

10-9095



Medium Duty Angle Mounting Bracket:

Heavy-gauge steel bracket. May be welded. For use with MJ, MGJ, and MH operators.

CHAIN TENSIONERS

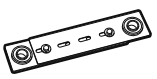
For Jackshaft Type Operators

71-6023

Chain Tensioner:

For 1" shafts

71-6125



Chain Tensioner:

For 1-1/2" shafts

ACCESSORIES

FIELD MODIFICATION KITS

71MLSBC

Single Button Control:

Provides additional input for Single Button Control functionality. Input functions as Close input when the operator is stopped at the Open limit. Input functions as Open input at all other times. Also used with external radio controls.

71 MLMOTION

Door-In-Motion:

Provides dry contact and a terminal block with contacts switched to power an auxiliary device while the door is in motion.

ANTENNA

EXT-ANT

Antenna:

External kit for medium duty.

86LM (15')
86LMT (25')

Antenna Extension Kit:

The antenna extension kit can be used with EXT-ANT for maximum radio receiver range.

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